DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-022047 Address: 333 Burma Road **Date Inspected:** 08-Mar-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Lv Li Qing No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** OBG

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance(QA) Inspector Mr. Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. The QA Inspector observed and/or found the following:

BAY # 14

This QA Inspector randomly observed the following work in progress.

OBG 14EAST

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066326 performing the Shielded Metal Arc Welding process on weld 017 located at PCMK SEG3019AZ. ZPMC QC Mr. Zhang Qiang was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2212-Tc-u2b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066763 performing the Flux Cored Arc Welding process on weld 250 located at PCMK SEG3019AW. ZPMC QC Mr. Zhang Qiang was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2232-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066733 performing the Flux Cored Arc

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Welding process on weld 249 located at PCMK SEG3019AZ. ZPMC QC Mr. Zhang Qiang was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 070007 performing the Shielded Metal Arc Welding process on weld 075 located at PCMK SEG3019V. ZPMC QC Mr. Zhang Qiang was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2213-Tc-u4b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066163 performing the Shielded Metal Arc Welding process on weld 022 located at PCMK SEG3019T. ZPMC QC Mr. Zhang Qiang was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2213-Tc-u4b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066439 performing the Flux Cored Arc Welding process on weld 006 located at PCMK SEG3019AW. ZPMC QC Mr. Zhang Qiang was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2133-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066163 performing the Shielded Metal Arc Welding process on weld 084 located at PCMK SEG3019M. ZPMC QC Mr. Zhang Qiang was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-3G (3F)-Fcm-Repair-1. Weld repair report identified as B-WR20248.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066418 performing the Shielded Metal Arc Welding process on weld 122 located at PCMK SEG3019R. ZPMC QC Mr. Zhang Qiang was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2211-B-u2-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 070006 performing the Shielded Metal Arc Welding process on weld 050 located at PCMK SEG3019AG. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2212-B- u2-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066236 performing the Flux Cored Arc Welding process on weld 169 located at PCMK SEG3019W. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This QA Inspector observed ABF personnel performing Magnetic Particle testing on the back gouged area of the weld joint between EP3027C and EP3027D. Weld number identified as SEG3019AG-050.

This QA Inspector observed ZPMC personnel performing Ultrasonic testing on the repair areas of weld joint between longitudinal diaphragm and Bottom panel. Weld number identified as SEG3019AA-026.

This Quality Assurance (QA) Inspector observed ZPMC personnel performing heat straightening, member identified as Anchor plate AP3004. Distortion appeared to be caused by welding. Weld number identified as

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SEG3019X-004~009. ZPMC Quality Control (QC) inspector identified as Mr. Zhong Guo Hui was present to monitor the heat straightening process. The heat straightening appeared to comply with heat straightening Report HSR1 (B)-10173.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No significant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

Inspected By:	Utekar,Shrikant	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer